What is claimed is:

1.   A   targeting   and   synchronization   service
providing system using package metadata for providing a
5   variety of contents, each formed of components, in the form
of a package by targeting and synchronizing the contents to
diverse types of terminals, the system comprising:
       a content service providing means for providing the
contents and package metadata;
10   a targeting and synchronization service providing
means for receiving and storing the contents and the
package metadata, obtaining a component and a content
matched with service request conditions requested by each
terminal through analysis, and providing the matched
15   component and content; and
       a   terminal   controlling/reproducing   means   for
transmitting the service request conditions which are
requested by the terminal to the targeting and
synchronization service providing means, and receiving the
20   content and the component matched with the service request
conditions from the targeting and synchronization service
providing means.

2.   The system as recited in claim 1, wherein the
25   targeting and synchronization service providing means
includes:
       a storing means for storing the package metadata and
the content which are inputted from the content service
providing means;
30   a service analyzing means for analyzing the service
request conditions inputted from the terminal
controlling/reproducing means and determining a content and
a component which are matched with the service request
conditions; and

a service controlling means for providing the content
and component determined in the service analyzing means to
the terminal controlling/reproducing means.

5   3.   The system as recited in claim 2, wherein the
package metadata include:
        package description information for selecting a
package desired by a user and describing general
information on an individual package to check whether the
10   selected package can be acquired; and
        container metadata for describing information on a
container which is a combination of diverse packages and
formed of a set of items, each of which is a combination of
components.

15

        4.   The system as recited in claim 3, wherein the
container metadata include:
        descriptor information for describing information on a
container;
20   reference information including identification
information for describing locations of packages and
components included in the container; and
        item description information for describing
information on the items included in the container.

25

        5.   The system as recited in claim 4, wherein the
descriptor information includes:
        component metadata for describing general information
on the components and information for each type of
30   components;
        relation metadata for describing relation between
items and components for forming and synchronizing
components; and
        targeting condition metadata for describing conditions

for a usage environment of the terminal to provide a targeting service for selecting an item and a component based on the diverse conditions of the terminal.

5   6.   The system as recited in claim 6, wherein the component metadata include:
       component description metadata for describing general particulars of a component;
       image component metadata for describing image
10 attributes of an image component;
       video component metadata for describing video attributes of a video component;
       audio component metadata for describing audio attributes of an audio component; and
15   application program component metadata for describing application program attributes of an application program component.

       7.   The system as recited in claim 6, wherein the
20 image attributes include a file size, a coding format, and a vertical/horizontal screen size.

       8.   The system as recited in claim 6, wherein the video attributes include media attributes of video, audio
25 attributes of video, image attributes of video, and motion video attributes of video.

       9.   The system as recited in claim 6, wherein the audio attributes include a file size, a coding format, and
30 channel information.

       10.   The system as recited in claim 6, wherein the application program attributes include application program classification information and media attribute information

·of the application program.

11.   The system as recited in claim 5, wherein the
relation metadata include:
    interaction   relation   information   for   describing
relative importance between the components;
    temporal   relation   information   for   describing   a
temporal sequence of component consumption; and
    spatial relation information for describing relative
locations of the components on presentation based on a user
interface.   .

12.   The system as recited. in claim 5, wherein the
targeting condition metadata include:
    user   condition   information   for   describing   user
environment characteristics;
    terminal condition information for describing terminal
environment characteristics;
    network condition information for describing network
environment   characteristics   connected   with   the   terminal;
and
    natural environment information for describing natural
environment   characteristics   such   as   the   location   of   a
terminal.

13.   The system as recited in claim 12, wherein the
user environment characteristics include a user preference,
user   history,   surge   information   and   visual/auditory
difficulty information.

14.   The system as recited in claim 12, wherein the
terminal   environment   characteristics   include   codec
capability,   device   attributes,   and   input/output
characteristic information.

15.   The system as recited in claim 12, wherein the network environment characteristics include a bandwidth of a network connected with the terminal, a delay

5   characteristic and an error characteristic.

16.   The system as recited in claim 12, wherein the natural environment characteristics include characteristics of audio/visual aspects, location information, and usage

10   time of a digital item.

17.   The system as recited in claim 4, wherein the identification information includes an arbitrary identifier, CRID, and a tree structure of a locator.

15

18.   Package   metadata   for   a   targeting   and synchronization service that can provide a variety of contents formed of components to diverse terminals in the form of a package in a targeting and synchronization

20   service providing system, the package metadata comprising:
        package   description   information   for   selecting   a package   desired   by   a   user   and   describing   general information on an individual package to check whether the selected package can be acquired; and

25   container metadata for describing information on a container which is a combination of diverse packages and formed of a set of items, each of which is a combination of components.

30   19.   The package metadata as recited in claim 18, wherein the container metadata include:
        descriptor information for describing information on a container;
        reference   information   including   identification

information for describing locations of packages and components included in the container; and

item description information for describing information on the items included in the container.

5

20. The package metadata as recited in claim 19, wherein the descriptor information includes:

component metadata for describing general information on the components and information for each type of

10   components;

relation metadata for describing relation between items and components for forming and synchronizing the components; and

targeting condition metadata for describing conditions

15   for a usage environment of the terminal to provide a targeting service for selecting an item and a component based on the diverse conditions of the terminal.

21. The package metadata as recited in claim 20,

20   wherein the component metadata include:

component description metadata for describing general particulars of a component;

image component metadata for describing image attributes of an image component;

25   video component metadata for describing video attributes of a video component;

audio component metadata for describing audio attributes of an audio component; and

application program component metadata for describing

30   application program attributes of an application program component.

22. The package metadata as recited in claim 21, wherein the image characteristics include a file size, a

coding format, and a vertical/horizontal screen size.

23. The package metadata as recited in claim 21,
wherein the video attributes include media attributes of
5   video, audio attributes of video, image attributes of video,
and motion video attributes of video.

24. The package metadata as recited in claim 21,
wherein the audio attribute includes a file size, a coding
10 format, and channel information.

25. The package metadata as recited in claim 21,
wherein the application program attributes include a
classification information of an application program and
15 media attribute information of an application program.

26. The package metadata as recited in claim 20,
wherein the relation metadata include:
interaction relation information for describing
20 relative importance between the components;
temporal relation information for describing a
temporal sequence of component consumption; and
spatial relation information for describing relative
location of the components on presentation based on a user
25 interface.

27. The package metadata as recited in claim 20,
wherein the targeting condition metadata include:
user condition information for describing a user
30 environment attribute;
terminal condition information for describing a
terminal environment attribute;
network condition information for describing a network
environment attribute connected with the terminal; and

41

natural environment information for describing a natural environment attribute such as the location of the terminal.

5   28.   The package metadata as recited in claim 27, wherein the user environment characteristics include a user preference, user history, surge information and visual/auditory difficulty information.

10   29.   The package metadata as recited in claim 27, wherein the terminal environment characteristics include a codec capability, device attributes, and input/output characteristic information.

15   30.   The package metadata as recited in claim 27, wherein the network environment characteristic includes a bandwidth of a network connected with the terminal, a delay characteristic and an error characteristic.

20   31.   The package metadata as recited in claim 27, wherein the natural environment characteristics include characteristic of audio/visual aspects, location information, and usage time of a digital item.